

**IN THE MATTER OF
THE ENVIRONMENTAL ASSESSMENT ACT, S.B.C 2002, C.43 (ACT)**

AND

**IN THE MATTER OF
ENVIRONMENTAL ASSESSMENT CERTIFICATE M02-01
ISSUED TO CHIEFTAIN METALS INC. (PROPONENT) FOR THE
TULSEQUAH CHIEF MINE PROJECT (PROJECT)**

**AMENDMENT #5 (AMENDMENT)
TO THE ENVIRONMENTAL ASSESSMENT CERTIFICATE M02-01**

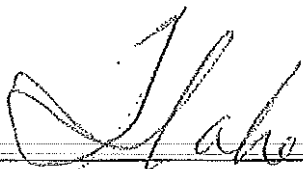
WHEREAS:

- A. The Minister of Sustainable Resource Management and the Minister of Energy and Mines issued Project Assessment Certificate M02-01 (Certificate) for the Project on December 12, 2002, to the Proponent under the *Environmental Assessment Act*, RSBC 1996, c.119.
- B. The Certificate requires the Proponent to design, locate, construct, operate and dismantle the Project in accordance with the Certificate. The Project is a copper, gold, zinc, lead, and silver underground mine located in northwestern British Columbia, 30 kilometres from the Canada-U.S. border and 120 kilometres south of Atlin, British Columbia.
- C. On September 21, 2007, the Certificate was amended (Amendment #1) to extend the period during which the Proponent must substantially start the Project until December 12, 2012.
- D. On September 21, 2007, the Certificate was amended (Amendment #2) to include changes to the Project design.
- E. On February 26, 2009, the Certificate was amended (Amendment #3) to reflect the proposed changes to the Project to allow for an alternate means of transporting materials and equipment to and from the Project site using air cushion barges.


- F. On November 1, 2010, the Certificate was amended (Amendment #4) to dispose of the Certificate and the Project to Chieftain Metals Inc., in accordance with Condition 9 of the Certificate and section 19(1) of the Act.
- G. On October 4, 2011, Chieftain Metals Inc. applied to the Executive Director regarding proposed road alignment changes to the approved access road, which would reduce the length of the new road by approximately 35 kilometres.
- H. In accordance with Condition 4(3) of the Certificate, EAO determined that the proposed Amendment could potentially cause significant adverse effects and established a review process for an effective assessment of the potential effects of the proposed Amendment.
- I. EAO conducted a review process that included public consultation and an intergovernmental Working Group to provide advice to EAO on the proposed Amendment. The Working Group was comprised of representatives from provincial and federal governments, Taku River Tlingit First Nation, United States and Alaska State government agencies.
- J. Based on the findings from the review, EAO has determined that the proposed changes to the Project, after taking into account the commitments and mitigation measures proposed by the Proponent, do not have the potential to cause significant adverse effects.
- K. In accordance with Condition 4(3)(b) of the Certificate, the Executive Director has recommended to the Minister of Environment and the Minister of Energy and Mines and Minister Responsible for Housing, that the Certificate be amended to allow the changes to the Project as described in the documents listed in Annex 1 of this Amendment, and has documented his conclusions and recommendations in a report entitled, "Tulsequah Chief Mine Proposed Amendment Assessment Report".

NOW THEREFORE, this Certificate is amended as follows:

1. Schedule A is amended by adding the documents listed in Annex 1 to this Amendment.
2. Schedule B is amended by adding the "Road Alignment Conditions" listed in Annex 2 to this Amendment.



Honourable Terry Lake
Minister of Environment



Honourable Rich Coleman
Minister of Energy and Mines and Minister Responsible for Housing

Issued this 19 day of OCTOBER, 2012

ANNEX 1

List of Documents Comprising the Tulsequah Chief Proposed Amendment Application, Supporting Documents and Key Correspondence

APPLICATION DOCUMENTS

- September 2011: Updated Project Description
 - December 2011: Revised Project Description
 - April 26, 2012: Amendment Application
 - June 6, 2012: Construction and Operations Phase Activities Report
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SUPPORTING DOCUMENTS

- March 2012: Environmental Effects Monitoring Plan
- August 2012: Adaptive Management Plan
- August 2012: Updated Risk Assessment Tables
- August 2012: Environmental Supervision Plan
- August 2012: Road Closure Plan
- August 2012: Amendment Comparison Table

KEY CORRESPONDENCE

- October 4, 2011: Letter from Terence Chandler, Chieftan Metals Inc., to John Mazure, EAO, regarding amendment request for the Tulsequah Chief Mine Project.

ANNEX 2

Tulsequah Chief Proposed Amendment: Environmental Assessment Certificate Conditions Chart

The conditions for the amendment are organized into two parts:

- Table 1: Conditions changed or added to the Certificate
- Table 2: Conditions removed from the Certificate

Table 1: Conditions changed or added to the Certificate

Condition #	Original Condition Wording	New Condition Wording
7.2 – Access Road	Ensure that the final alignment studies include assessment of important grizzly bear patch habitat, avoid heritage resources including the TRTFN historic trail where possible, and incorporate winter construction to the extent possible within the access right-of-way.	Chieftain Metals Inc. (CMI) must ensure that the final access road alignment studies include assessment of important grizzly bear patch habitat as defined in section 10.2 of the K. Diemert "Grizzly Bear Habitat Suitability Model for the Atlin Lake and Taku River Watersheds: Species Account and Model Assumptions", 2003. The report on the patch habitat must be completed prior to construction and must include those portions of the road alignment that traverse important grizzly bear habitat that cannot be avoided for road use and will include monitoring under the Adaptive Management Plan. CMI must manage unavoidable grizzly bear habitat as per the Adaptive Management Plan.
10.1 – Access Road Deactivation	No condition.	CMI must implement the Road Closure Plan dated August 2012 to the satisfaction of the District Manager, Ministry of Forests, Lands and Natural Resource Operations.
12.1 -Environmental Supervision Plan	Comply with the Environmental Supervision plan found in Appendix 1 to Appendix 11 of the Report and Recommendations of the Tulsequah Chief Project Committee March 1998.	CMI must Comply with the Environmental Supervision Plan, dated August 2012 and approved by EAO.

Condition #	Original Condition Wording	New Condition Wording
14.1 – Trapping	Conduct annual consultations with current trapline owners and local hunters to assess actual impacts and conduct appropriate mitigation or compensation where needed.	CMI must conduct annual consultations with current trapline holders (TR0625T012, TR0625T011, TR0625T010, TR0626T021) to assess potential impacts and mitigations and maintain a record of consultation which includes the stakeholder's name, the date, and the location of the contact and any concerns raised. CMI must provide a record of the consultation to the Ministry of Forests, Lands and Natural Resource Operations (Skeena Region).
16.1 – Grizzly Bear Long Term Monitoring Plan	Comply with the Grizzly Bear Long-term Monitoring Plan Appendix 4 to Appendix 11 of the Report and Recommendations of the Project Committee, March 1998.	<p>CMI must comply with the "Phase-2" Grizzly Bear Long-term Monitoring Plan, Appendix 4 of Appendix 11 of the Report and Recommendations of the Project Committee, March 1998.</p> <p>Without limitation, CMI must develop and implement the site-specific grizzly bear monitoring plan and obtain approval of the plan from the Ministry of Forests, Lands and Natural Resource Operations (MFLNRO)</p>
17.1 – Wildlife (ungulate) Monitoring Plan	Comply with the Ungulate Monitoring Plan found in Appendix 5 to Appendix 11 of the Report and Recommendations of the Project Committee, March 1998.	<p>CMI must comply with the pre-construction, construction and operations monitoring for ungulates identified in MFLNRO letter dated July 17, 2012 (K. Diemert). Specifics of the monitoring plan will be developed according to the standards provided by the Resource Inventory Standards Committee and approved by the MFLNRO. Surveys must be conducted once each year for three consecutive years and not less than once every three years thereafter.</p> <p>CMI must:</p> <ul style="list-style-type: none"> • Conduct caribou calving occupancy surveys of Mount McCallum. The initial survey must occur prior to commencement of construction. • Conduct winter inventory surveys for mountain goats. • Conduct winter surveys of moose population within the Tulsequah valley.
17.2 - Wildlife	No condition.	Prior to start of construction, CMI must conduct a survey of

Condition #	Original Condition Wording	New Condition Wording
(Western Toad) Monitoring Plan		prospective Western toad habitats along the alignment to determine presence/absence and prospective breeding areas. During construction and operations, CMI must monitor identified sites during breeding season to determine if toad tunnel installation (CSP pipe) is required to avoid toad mortality during mass migration periods.
17.3 – Wildlife (nesting birds) Monitoring Plan	Avoid, if possible, vegetation clearing activities during the breeding bird window of March 15 to August 15. If vegetation clearing activities must occur within this window, employ Canadian Wildlife Service (CWS) survey protocols for a minimum of three consecutive days prior to clearing activities and ensure buffer zones are established around active nests.	If vegetation clearing activities occur during the breeding bird window (March 15 to August 15) nest surveys must be completed by a qualified environmental professional and must follow CWS survey protocols. If vegetation clearing activities must occur within this window, employ CWS survey protocols for a minimum of three consecutive days prior to clearing activities and ensure buffer zones are established around active nests.
18.5 - Wildlife Mitigation – Access Management	Install a gate at the O'Donnel river bridge crossing (near km 105) and ensure it is attended full-time to supervise and control access to the road south of the O'Donnel river to the mine site.	CMI must install a gate at the crossing of the O'Donnel River location, and ensure it is attended full-time (24 hours a day, 7 days a week, 365 days a year) to supervise and control access to the road.
20.1 – Malfunctions and Accidents	Comply with the spill contingency plan as outlined in Volume IV, section 3.2 of the Project Report.	Comply with the Spill Prevention and Response Plan (April 2012).
22.1 – Cultural and Heritage Effects	Apply for a permit under section 14 of the Heritage Conservation Act if further archaeological assessment is undertaken.	The Proponent must conduct an Archaeological Impact Assessment (AIA) by a qualified professional on the access road from kilometre 54 to where the road joins the Warm Bay Road. The AIA must be completed before construction begins and must (1) identify any sites that are protected under the <i>Heritage Conservation Act</i> and any effects that the construction or operation of the access road would have on those sites, and (2) propose actions to mitigate the effects. The Proponent must carry out actions, that are directed by the Archaeology Branch of the Ministry of Forests, Lands and Natural Resource Operations, to mitigate any effects of the access road on the sites identified in the AIA.

Condition #	Original Condition Wording	New Condition Wording
24.1 – Adaptive Management Plan	No condition.	CMI must implement the Tulsequah Chief Adaptive Management Plan dated August 2012 and approved by EAO.
24.2 –Environmental Effects Monitoring Plan	Conduct further EEM work which will include fish tissue metals concentrations and sedimentation impacts along the access roads in steeper terrain and other sensitive areas along the Nakonake River as requested by DFO.	CMI must implement the Tulsequah Chief Environmental Effects Monitoring Plan dated March 2012.

Table 2: Conditions removed from the Certificate

Condition #	Original Condition Wording
9.1 – Road Operation and Maintenance	Conduct road maintenance in accordance with section 6.5 Volume IV Project Report and in accordance with the plan approved by the District Manager, MoF, substantially as outlined in the Environmental Supervision Plan, dated May 21, 1999.
11.1.1 – QA/QC	Conduct further QA/QC monitoring as outlined in the Aquatic Environmental Effects Monitoring Plan found in Appendix 2A of Appendix 11 of the Report and Recommendations of the Project Committee, March 1998.
11.2.1 – Aquatic EEM	Conduct the work outlined in the Environmental Effects Monitoring Plan found in Appendix 2A of Appendix 11 of the Report and Recommendations of the Project Committee, March 1998.
11.2.2 – Aquatic EEM	Conduct further EEM work which will include fish tissue metals concentrations and sedimentation impacts along the access roads in steeper terrain and other sensitive areas along the Nakonake River as requested by DFO.
11.2.10 – Aquatic EEM	Sampling sites associated with the access road will focus on the six crossings where there is potential for moderate to high downstream sedimentation impacts.
15.1 – Cumulative Effects Assessment Grizzly Bear Terms of Reference Plan	Comply with the Grizzly Bear Cumulative Effects Analysis Terms of Reference found in Appendix 3 to Appendix 11 of the Report and Recommendations of the Project Committee, March 1998.

Condition #	Original Condition Wording
18.1 - Wildlife Mitigation - Access Management	Education of construction personnel and contractors on the requirement to adhere to the corporate policy and commitments made by the proponent and the specific environmental mitigation practices to be incorporated in road construction including, for example: siltation reduction and capture methods, stream crossing guidelines for equipment, spill abatement, wildlife species and habitat issues, firearm, hunting and fishing prohibitions for all personnel.
18.2- Wildlife Mitigation - Access Management	Install locked gates at beginning and end of new 12 km stretch of road through Spruce-Wilson.
18.3 - Wildlife Mitigation - Access Management	Develop and adopt further access and use controls specified in the operations phase as soon as practicable once construction segments are completed.
18.4 - Wildlife Mitigation - Access Management	Begin identification of sensitive wildlife habitat and crossing locations and adjust traffic control as necessary.
18.6 - Wildlife Mitigation - Access Management	Restricted use of the road will be authorized under the Mining Right of Way Act and other applicable legislation as deemed appropriate and necessary by regulatory authorities. (Forest Act, Environment and Land Use Act, Wildlife Act.) The intention will be to use the legislation to restrict use of the road to mine vehicles, to the extent possible. As the deemed owner of the access road under the MRWA, the proponent has the right to charge such users for access rights and to require the permitted party to abide by all applicable restrictions governing the use of the road, including firearm and hunting/fishing prohibitions and other restrictions.
18.7 - Wildlife Mitigation - Access Management	Non-industrial tenure holders must apply to the Minister of Energy and Mines for authorisation to use the road, without charge, to access their tenures for their permitted purposes. The proponent retains the right and will strictly prohibit access to all parties who do not have such authorisation. Authorised users will be required to abide by all road use restrictions and operating procedures or will be denied access. The proponent considers that this provision would apply equally to all current non-industrial tenure holders.
19.1 - Wildlife Mitigation - Access Management	Prohibition against carrying firearms on all mine or mine contractor vehicles using the access road. Defense of Life and Property measures to use non-lethal deterrent measure to the full extent possible and control by wildlife conservation officers as necessary. Under exceptional circumstance, the Mine Manager or delegate may authorize the carrying of a firearm by mine personnel for defence and preservation of life purposes only.
19.2 - Wildlife Mitigation - Access Management	Prohibition against all hunting or shooting within the mine access road right of way, by "Wildlife Act" order if required.
19.3 - Wildlife Mitigation	Prohibition of fishing within the right of way for all authorized users of the access road.

Condition #	Original Condition Wording
– Access Management	
19.4 - Wildlife Mitigation – Access Management	No recreational use of the access road right of way by all mine employees, contractors and visitors.
19.7 - Wildlife Mitigation – Access Management	Access road priority of right of way will be 1) wildlife, 2) loaded concentrated trucks, 3) loaded supply trucks, 4) personnel transport bus, and 5) light vehicles. Radio calls of vehicle locations at kilometre signposts will allow vehicles to identify proximity to approaching vehicles and lower priority vehicles will be required to pull aside into turn-out locations to allow priority vehicles to pass. All vehicles will cede right of way to wildlife.
19.9 - Wildlife Mitigation – Access Management	For safety reasons, the proponent will seek designation from MWLAP of a "no shooting" zone for the entire access road pursuant to the provisions of the Wildlife Act.
19.10 - Wildlife Mitigation – Access Management	Where the access road departs from the existing unregulated road network and is considered "new" road access for the purposes of the mine access traffic requirements (upper Wilson Creek to Spruce Creek crossing), the proponent will install unmanned locked gates to restrict access to the new road to authorized users only. Location of these gates will be subject to consultation with the District Manager of FLNRO. Signs will be posted advising of the presence of the gates and that access is restricted to only authorized users pursuant to the applicable legislation and road safety and usage requirements.
19.11 - Wildlife Mitigation – Access Management	Access will be restricted in the gated portions of the northern section of the road. Use of the road will be monitored by all mine traffic and unauthorized users will be identified and required to leave the access road with enforcement and penalties by provincial enforcement bodies as deemed applicable and necessary. The additional impact mitigation measure described for the south portion of the access road will be applied identically to the northern road sections.
19.13 - Wildlife Mitigation – Access Management	Finalize deactivation plan in accordance section 64 of the Forest Practices Code Act and will include removal of all major bridges and culverts, pull back to contour in areas of high erosion potential, scarification of the road prism, replacement of salvaged topsoil and revegetation.
22.1 – Cultural and Heritage Effects	Apply for a permit under section 12 of the Heritage Conservation Act prior to road construction, which would affect the three recorded trails.
22.2 – Cultural and Heritage Effects	Apply for a permit under section 14 of the Heritage Conservation Act if further archaeological assessment is undertaken.
22.4 – Cultural and	Avoid one site at approximately km 11.5 during construction because of its cultural significance (location identified in

Condition #	Original Condition Wording
Heritage Effects	Point West Heritage Consulting entitled Atlin Road Upgrading km 0 to km 42, Heritage Investigations 1995).
22.5 – Cultural and Heritage Effects	Implement a salvage of archaeological resources, if heritage resources are encountered in the archaeological impact assessment of new, borrow sources or realignment, and if avoidance of these sites is not possible.
22.6 – Cultural and Heritage Effects	Heritage trail: seek the participation of the TRTFN in ground-truthing the location of the historic trail, the more detailed alignment studies, and proposed mitigation measures.